

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for reducing boundary effects in images with mixed screen patterns, comprising:

halftoning an original contone image, resulting in a halftone image with a plurality of ~~halftone portions;~~ portions, each halftone portion comprising a portion of the image halftoned by a halftone, at least two halftone portions comprising portions of the image halftoned by different halftones; and

adjusting boundary regions located between halftone portions of the halftone image to minimize a brightness deviation between the boundary regions and the original contone image.

2. (Previously Presented) The method according to Claim 1 for reducing boundary effects in images, wherein adjusting boundary regions further comprises:

performing a low-pass filtering of halftones in the boundary regions, a boundary region having a width that is one or more pixels wide.

3. (Previously Presented) The method according to Claim 2 for reducing boundary effects in images, wherein low-pass filtering further comprises:

choosing a cutoff frequency for the low-pass filtering.

4. (Previously Presented) The method according to Claim 2 for reducing boundary effects in images, wherein low-pass filtering further comprises:

choosing a cutoff frequency for the low-pass filtering that is substantially the halftone frequency.

5. (Previously Presented) The method according to Claim 2 for reducing boundary effects in images, wherein adjusting boundary regions further comprises:

comparing a filtered portion of the halftone image to a corresponding portion of the original contone image and generating an error map.

6. (Previously Presented) The method according to Claim 2 for reducing boundary effects in images, wherein adjusting boundary regions further comprises:

comparing a filtered portion of the halftone image to a corresponding portion of the original contone image to generate an error map that includes an error at a pixel (m,n).

7. (Previously Presented) The method according to Claim 6 for reducing boundary effects in images, further comprising:

adjusting pixels in the boundary regions to reduce a magnitude of errors stored in the error map that correspond to the pixels.

8. (Previously Presented) The method according to Claim 6 for reducing boundary effects in images, further comprising:

adjusting sequentially the pixels in the boundary regions to reduce a magnitude of the errors stored in the error map that correspond to the pixels.

9. (Previously Presented) The method according to Claim 6 for reducing boundary effects in images, further comprising:

adjusting the pixels in the boundary regions by first adjusting pixels with errors larger than the errors associated with other pixels in the boundary regions to reduce a magnitude of the errors stored in the error map that correspond to the pixels with larger errors.

10. (Currently Amended) A method for reducing boundary effects in images with mixed screen patterns, comprising:

halftoning an original contone image, resulting in a halftone image with a plurality of halftone portions; portions, each halftone portion comprising a portion of the image halftoned by a halftone, at least two halftone portions comprising portions of the image halftoned by different halftones;

adjusting boundary regions located between halftone portions of the halftone image to minimize a brightness deviation between the boundary regions and the original contone image; and

performing a low-pass filtering of halftones in the boundary regions, a boundary region having a width that is one or more pixels wide.

11. (Previously Presented) The method according to Claim 10 for reducing boundary effects in images, wherein low-pass filtering further comprises:

choosing a cutoff frequency for the low-pass filtering.

12. (Previously Presented) The method according to Claim 10 for reducing boundary effects in images, wherein low-pass filtering further comprises:

choosing a cutoff frequency for the low-pass filtering that is substantially the halftone frequency.

13. (Previously Presented) The method according to Claim 10 for reducing boundary effects in images, wherein adjusting boundary regions further comprises:

comparing a filtered portion of the halftone image to a corresponding portion of the original contone image and generating an error map.

14. (Previously Presented) The method according to Claim 10 for reducing boundary effects in images, wherein adjusting boundary regions further comprises:

comparing a filtered portion of the halftone image to a corresponding portion of the original contone image to generate an error map that includes an error at a pixel (m,n).

15. (Previously Presented) The method according to Claim 14 for reducing boundary effects in images, further comprising:

adjusting pixels in the boundary regions to reduce a magnitude of errors stored in the error map that correspond to the pixels.

16. (Currently Amended) A method for reducing boundary effects in images with

mixed screen patterns, comprising:

means for halftoning an original contone image, resulting in a halftone image with a plurality of halftone ~~portions~~, portions, each halftone portion comprising a portion of the image halftoned by a halftone, at least two halftone portions comprising portions of the image halftoned by different halftones;

\_\_\_\_\_ means for adjusting a boundary region located between the halftone portions of the halftone image to minimize a brightness deviation between the boundary regions and the original contone image;

means for performing a low-pass filtering of halftones in the boundary regions, a boundary region having a width that is one or more pixels wide; and

means for choosing a cutoff frequency for the low-pass filtering.

17. (Previously Presented) The method according to Claim 16 for reducing boundary effects in images, wherein low-pass filtering further comprises:

means for choosing a cutoff frequency for the low-pass filtering that is substantially the halftone frequency.

18. (Previously Presented) The method according to Claim 16 for reducing boundary effects in images, wherein adjustment further comprises:

means for comparing a filtered portion of the halftone image to a corresponding portion of the original contone image and generating an error map.

19. (Previously Presented) The method according to Claim 16 for reducing boundary effects in images, wherein adjustment further comprises:

means for comparing a filtered portion of the halftone image to a corresponding portion of the original contone image and generating an error map that includes an error at a pixel (m,n).

20. (Previously Presented) The method according to Claim 19 for reducing

boundary effects in images, further comprising:

means for adjusting pixels in the boundary regions to reduce a magnitude of errors stored in the error map that correspond to the pixels.